Sept. 14, 1926. 1,599,558

F. DIEHL

INSULATING BLOCK

Filed March 5, 1921

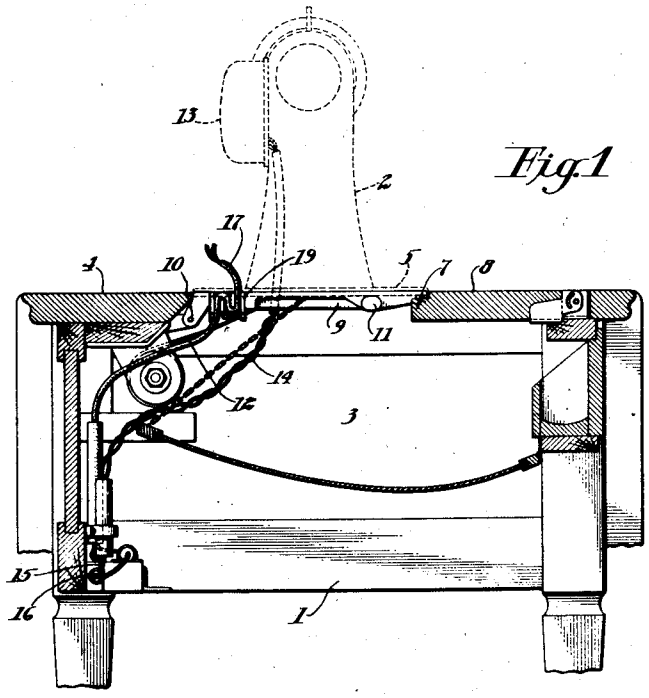


Fig. 1

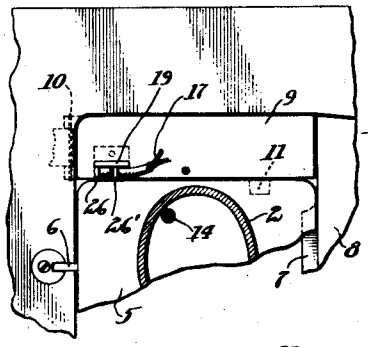


Fig. 2

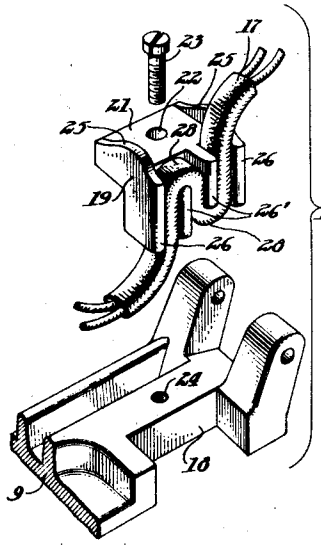


Fig. 3

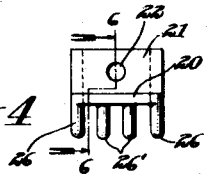


Fig. 4

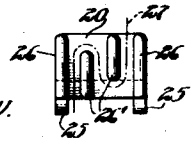


Fig. 5

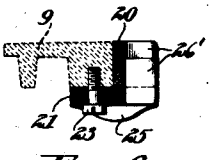


Fig. 6

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UNITED STATES PATENT OFFICE.

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INSULATING BLOCK.

Application filed March 5, 1921. Serial No. 449,969.

This invention relates to insulating and anchoring devices for electrical conductor cords and is useful, more particularly, in motor-driven sewing machine outfits. In such outfits, it is the usual practice to mount the driving motor above the level of the sewing machine bed-plate, while a motor-controller or rheostat is mounted below the level of the bed-plate. Also, it is usually desirable that the electrical conductor cord leading to the source of supply be extended upwardly from the level of the sewing machine bed-plate, so that it may be conveniently plugged into a wall-bracket or other household lighting fixture. As the sewing machine or so-called "sewing-head" is usually stationed upon a stand or cabinet, the problem presents itself of neatly and satisfactorily anchoring the supply or such other cord as may pass from above to below the level of the bed-plate.

In accordance with the present improvement, in its preferred embodiment, the so-called "lifting plate" commonly incorporated in drop-head sewing machine cabinets so as to extend along one end of the sewing head, is formed with a recess in its lateral edge adjacent the sewing machine bed-plate. Into this recess is let the present insulating and cord anchoring block through which the conductor cord passes from above to below the level of the bed-plate. The insulating block preferably comprises a body portion having an attaching flange and an open side which is formed with spaced cord confining and separating studs defining a tortuous open-sided passage for the cord. When the insulating block is secured in position on the lifting plate, the open-side of said block is closed by the adjacent edge of the sewing machine bed-plate, thus preventing lateral displacement of the cord from the block. The tortuous passage serves to securely anchor the cord against endwise slippage without in any way tending to abrade the cord.

In the accompanying drawings, Fig. 1 is a vertical sectional view through an electric sewing machine cabinet outfit embodying the invention. Fig. 2 is a fragmentary top plan view of the same. Fig. 3 is a disassembled perspective view of the balance-plate and insulating block. Fig. 4 is a top plan view of the insulating block. Fig. 5 is a side elevation of the same and Fig. 6 is a sectional view on the line 6—6, Fig. 4.

In the preferred embodiment of the invention, as illustrated, 1 represents a drop-head sewing machine cabinet, of usual construction, such, for example, as illustrated in the United States patent to Kopf & Hemleb, No. 1,349,678, of August 17, 1920.

The means incorporated in the cabinet for supporting the sewing head 2 so that it may be swung or dropped from the position shown in Fig. 1 into the cavity 3, below the level of the table or cabinet-top 4, are constructed substantially in accordance with the disclosure in the United States patent to Diehl et al., No. 541,474; the rear side of the machine bed-plate 5 being supported by the usual hinge pins, one of which is shown at 6, and the front side of said bed-plate resting upon the lip 7 of the hinged leaf 8. When the machine is to be dropped into the cavity 3, the head 2 and hinged leaf 8 are first lifted, to carry the lip 7 out of range of the front edge of the bed 5, whereupon the machine 2 may be lowered into the cavity 3.

To sustain the greater portion of the weight of the sewing head 2, as it is being dropped into or raised from the cavity 3, it is customary to provide the cabinet with a "lifting plate" 9 which is hinged to the cabinet at 10 and is formed with a lateral lug 11 adapted to extend beneath the sewing machine bed 5. A counterbalancing spring 12 is customarily utilized to exert upward pressure upon the plate 9, all as more fully described in said Diehl et al. patent.

In the instance illustrated herein, the sewing machine is provided with a built-in electric motor 13 such as disclosed in the Dosch et al. Patent No. 1,311,114, and such motor has its lead wires 14 extended downwardly within the hollow arm of the sewing head 2 to the distributing point 15 within the cabinet 1, from which point the controller leads 16 extend to a suitable knee or treadle operated controller.

The supply cord 17 leading to the distributing point 15 is, in accordance with the embodiment of the invention illustrated, led upwardly within the cavity 3 through an insulated recess in the lifting plate 9. In order that the cord 17 may be securely an-

chored as well as suitably insulated, the plate 9 is formed at one edge with a recess 18 into which is let the cord-insulating and anchoring block 19. The block 19 may be formed with a cheek piece 20 at right angles to which is disposed the attaching flange 21 having the screw-hole 22 through which passes the screw 23 threaded into the screw-hole 24 at the under side of the plate 9 adjacent the recess 18. The junction of the cheek piece 20 and attaching flange 21 is reenforced by the side flanges 25.

Projecting from the cheek-piece 20 at right angles to the latter are the spaced parallel cord-confining studs or ribs 26, 26', defining a tortuous passage 27 into which the cord 17 may be readily inserted. It will be observed that the cord is thus led from below to above the level of the bed-plate 5 and is securely anchored against endwise slippage, without the danger of abrasion of the cord insulation which would be present if a cord clamp were used. The intermediate studs 26' are of less depth than the end studs 26 as shown in Figs. 3 and 5 and are disposed in staggered relation, in order that the bends 28 of the cord 17 will not project beyond the upper and lower edges of the cheek-piece 20. The open side of the passage 27 is normally closed by the end of the sewing machine bed-plate 5, as shown in Fig. 2.

The device may, of course, be used for insulating and anchoring any conducting cord which it may be desired to pass from one to the other side of a metallic plate.

While I have shown and described the invention in one specific embodiment, it is to be understood that the invention may be otherwise specifically embodied within the scope of the appended claims.

Having thus set forth the nature of the invention, what I claim herein is—

1. The combination with a metallic plate having a notched edge, of an insulating block let into the notch in the edge of said plate so as to be substantially flush with said edge, said block being formed with an open-sided tortuous passage for an electrical conductor cord.

2. The combination with a metallic plate having a notched edge, of an insulating block let into the notch in the edge of said plate so as to be substantially flush with said edge, said block being formed with an open-sided tortuous passage for an electrical conductor cord, the in-let and out-let to said passage being at opposite sides of said plate.

3. The combination with a metallic plate having a recess in one of its edges, of an insulating block having a body-portion received within said recess, and an attaching flange at right angles to said body-portion and secured against one side face of said plate, the body-portion of said insulating block comprising a cheek-piece and a plurality of spaced parallel cord-confining ribs at right angles to said cheek-piece.

In testimony whereof, I have signed my name to this specification.

FREDERICK DIEHL.